Operating Manual
Manuel de l'opérateur
Manual de Operación

with Kodak Extra Bright Lamp Module

KODAK EKTAGRAPHIC III Slide Projector

Kodak

PRESENTATION TECHNOLOGIES

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KODAK EKTAGRAPHIC III Slide Projector

If you **fully** complete and return this postage-paid card, we'll send you free of charge *How to be a knockout with AV* (KODAK Publication No. S-31). (Offer expires 6 months after date of purchase.)

5860

Model: ☐ A ☐ AMT ☐ ATS ☐ BR ☐ ABR ☐ E Plus

(Please Print)

Purchase Date _____ No. of Units Purchased _____

User Name _____

Company/Organization _____

Phone No. (____) _____

Street/PO Box _____

City _____ State _____ ZIP Code _____

Dealership Name _____

City _____ State _____ ZIP Code _____

Please circle only one item for each question.

Where did you first learn of this product?

1. Convention/Trade Show
2. Seminars/Technical Meeting
3. Dealer
4. Magazine Ad
5. Direct Mail
6. Personal Referral
7. Previous Experience
8. Magazine Article
9. Other _____

What is your market segment?

10. Business/Industry
11. Elementary/Secondary School
12. College/University
13. Medical Industry (School, Hospital, Professional)
14. Government (State, Fed'l, Military)
15. Religious Organization
16. Personal/Home use
17. Other _____

What is your profession/title?

21. Teacher/Inhouse Trainer
22. Manager/Supervisor
23. Accounting/Auditing/Financial Role
24. Engineer/Research Scientist
25. Computer Specialist/Analyst
26. Marketing/Advertising/Planning/ Public Relations
27. Personnel
28. Architect/Designer
29. Physician/Dentist/Nurse
30. Sales Representative
31. AV Specialist/Media Producer
32. Purchasing Buyer
33. Other _____

What will the principal product application be?

51. Advertising/Sales Promotion
52. Presentation Support
53. Education/Training/Instruction
54. Home Display/Hobby
55. Other _____

Please tape here. Do not staple.

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Operating Manual

KODAK EKTAGRAPHIC III Slide Projector

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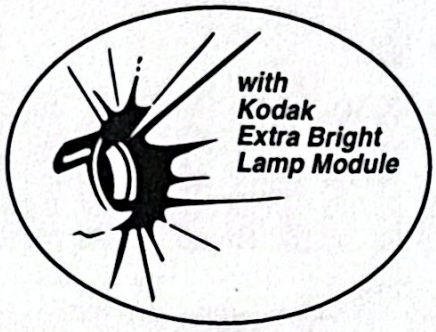
Congratulations!

You have just purchased a KODAK EKTAGRAPHIC III Slide Projector with a KODAK Extra Bright Lamp Module.

This new lamp module provides 30% greater light intensity so your images look brighter, richer and more saturated. This module features a "Lamp On" indicator on the lamp module door.



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English

SAVE THESE INSTRUCTIONS

Serial Number
The serial number of your projector is printed on the label affixed to the power cord retainer on the base of the projector. Record this number, as well as the model identification, date, and place of purchase, for future reference.

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Overview

FRONT RIGHT

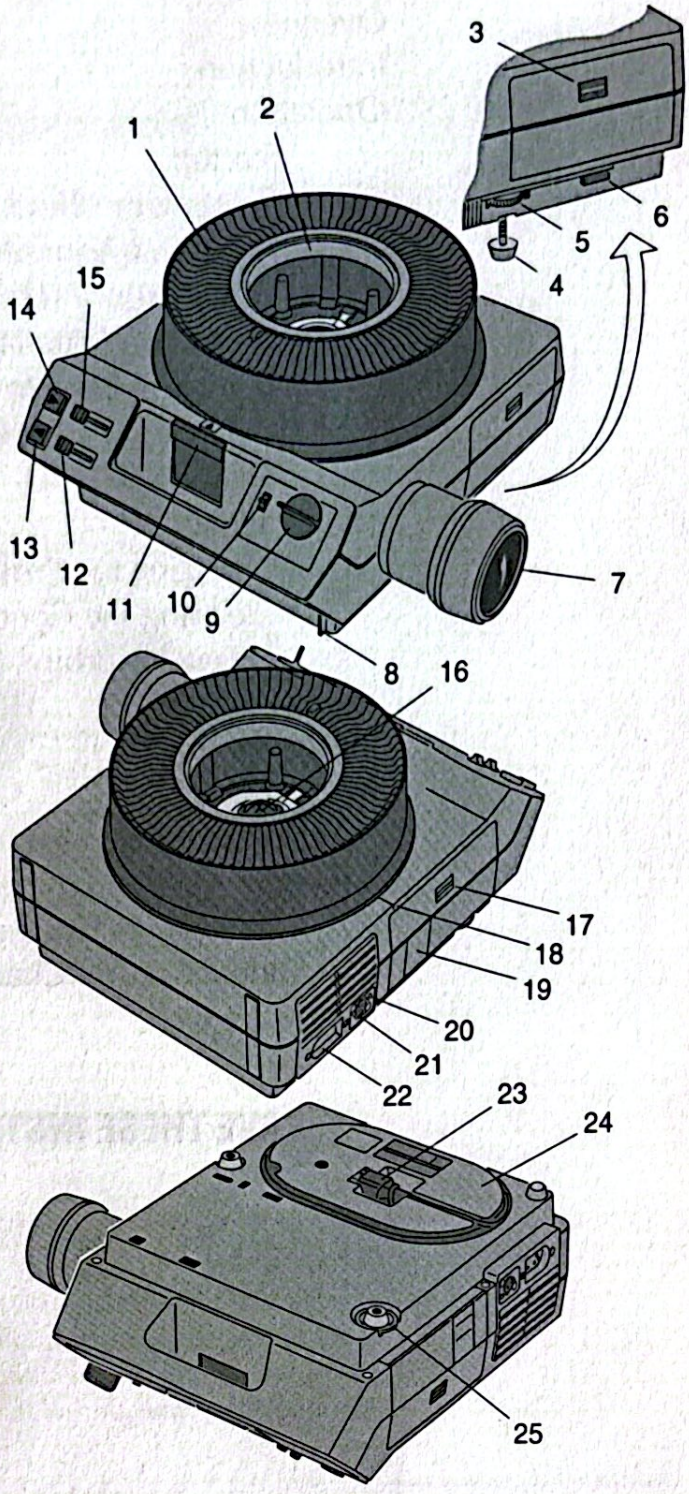
1 – Tray
2 – Lock Ring
3 – Storage Compartment/Remote
4 – Elevating Foot
5 – Elevating Adjustment Wheel
6 – Elevating Foot Release Button
7 – Lens
8 – Viewer (Model ATS)
9 – Focus Knob
10 – Autofocus (Models A, AMT, & ATS)
11 – Select Bar
12 – Timer (Models AMT & ATS)
13 – Reverse
14 – Forward
15 – Power/Fan/Half Lamp/Full Lamp

BACK RIGHT

16 – Tray Release Latch
17 – Lamp Module
18 – Raised Index Mark
19 – Reading Light Cover
20 – Standby Light
21 – Special-Application Receptacle
22 – Remote Receptacle

BASE

23 – Power Cord
24 – Power Cord Retainer
25 – Leveling Foot



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Introduction

Take the time to read the instructions in this operating manual to become familiar with your KODAK EKTAGRAPHIC III Slide Projector and learn how to operate it properly.

Operation

Startup

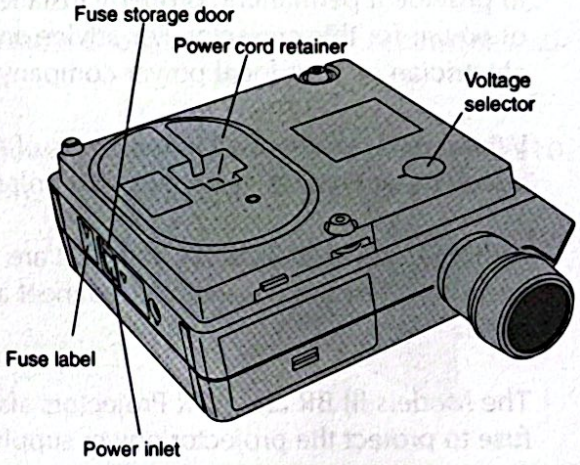
Model III ABR Only

IMPORTANT! Before you turn on your new KODAK EKTAGRAPHIC III ABR Slide Projector, **it is critical to set the voltage selector to the proper setting.**

The voltage selector on the KODAK EKTAGRAPHIC III ABR Slide Projector is located on the base of the projector. Using a small object, such as a coin, you can set the **voltage selector** for the proper voltage (100, 115, 130, 220, 230, and 240 V).

The EKTAGRAPHIC III ABR Slide Projector has a sensing capability to automatically set the proper power cycle (50 or 60 Hz). This eliminates the need to manually change the two-position switch included on models manufactured before November, 1996. This projector is shipped with a detachable power cord that is packaged separately (not wound on the Power Cord Retainer).

A spare fuse is provided on the Model III ABR Slide Projector also. The fuse is located in the small, pull-out storage door below the **Power Inlet**. Simply pull the door with your finger. Remove the spent fuse with a small object (i.e. pencil tip) by pushing the fuse up and removing it from the receptacle. Press the spare fuse into the receptacle and close the storage door.



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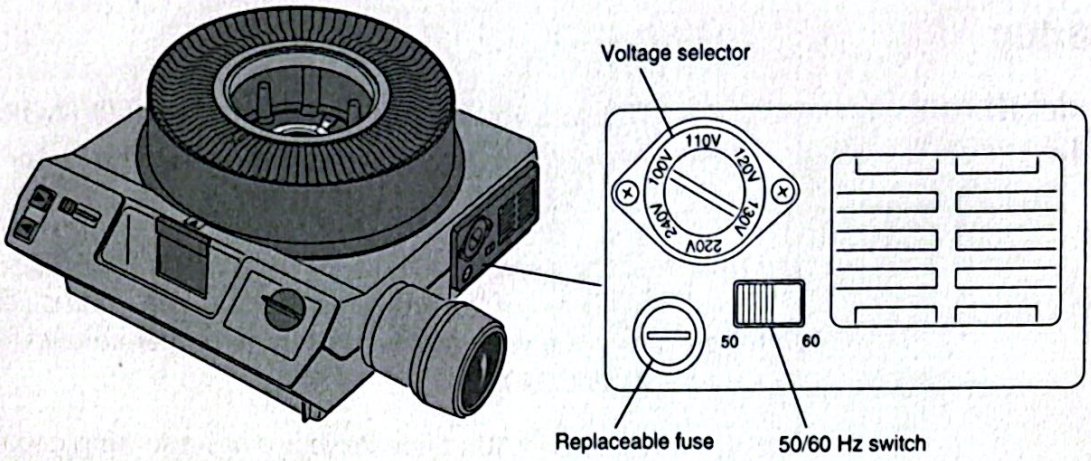
Model III BR Only

IMPORTANT! If you have a KODAK EKTAGRAPHIC III BR Slide Projector, **it is critical to set the voltage selector before performing any other function.**

Using a coin, such as a nickel, set the **voltage selector** for the proper voltage (100, 110, 120, 130, 220, and 240 VAC). Then flip the **50/60 Hz switch** to the appropriate setting for your country.



Unwind the power cord and insert the plug into a power supply. An adapter may be necessary in some countries to ensure grounding and polarization.

Models III ABR and III BR

IMPORTANT! The EKTAGRAPHIC III BR and ABR Slide Projectors are supplied with a 3-wire grounding power cord to comply with UL122 (USA) and CSA222 (Canada) safety and electrical standards. We urge you to provide a permanent, properly installed 3-wire receptacle as the source of power for this projector. For advice and assistance, call a licensed electrician or your local power company.

When used outside the United States of America, please use a proper adapter that ensures grounding and polarization.

Although the Models III BR and ABR are approved to the standards of UL and CSA, they are not intended to meet approval in all countries world-wide.

The Models III BR and ABR Projectors also provide you with a **replaceable fuse** to protect the projector power supply.

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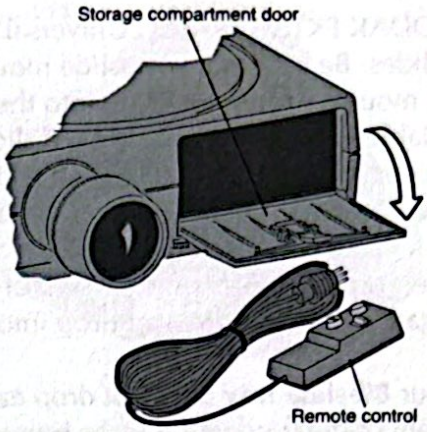
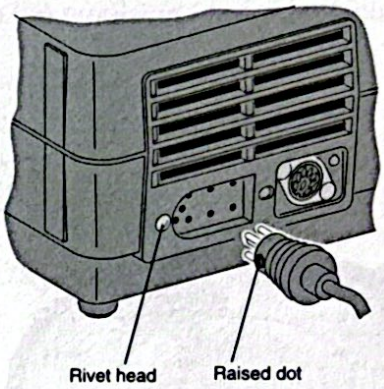
Models A, AMT and ATS

Open the **storage compartment** and remove the remote control.

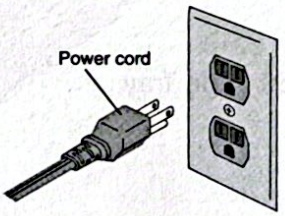


Plug the 5-pin cable remote connector into the remote-control receptacle, aligning the **raised dot** with the metallic **rivet head.**



This receptacle also accepts plugs for accessories, such as Kodak dissolve controls.

Plug the **power cord** into a grounded outlet with 110- to 125-volt 60 Hz current only.



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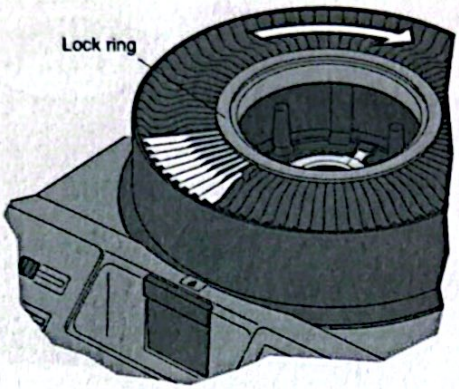
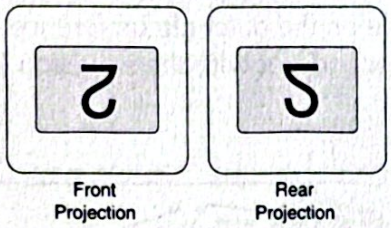
Replace the lock ring by turning it *clockwise* until it is secure.



Rear-Screen Projection

You can easily adapt a show from front- to rear-screen projection. Remove each slide from the tray and *turn it around* (keeping the slide upside down). This will give the projected slide a mirror image on the screen.



Insert your first slide back into the first slot in the tray. The number is now visible in the *inner* circumference of the tray.

Replace the lock ring by turning it *clockwise* until it is secure.

With a Dissolve Control

When you use a dissolve control, put your slides into two trays (one for odd- and one for even-numbered slides).

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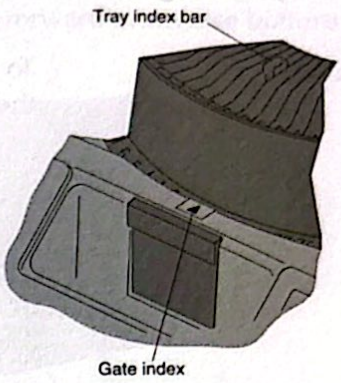
Tray

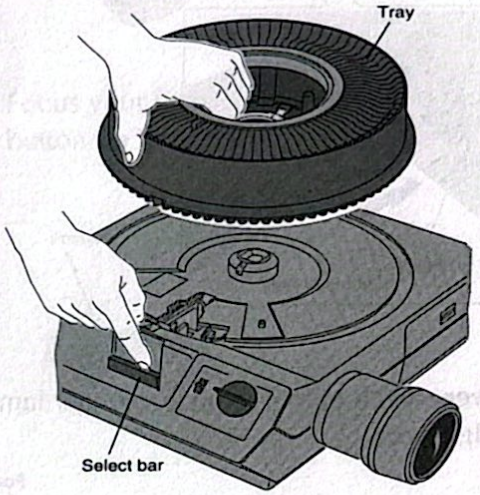
Place the loaded slide tray on the projector. Align the **tray index bar** with the **gate index.** The tray will drop into position.



Removing the Tray

To remove the slide tray:

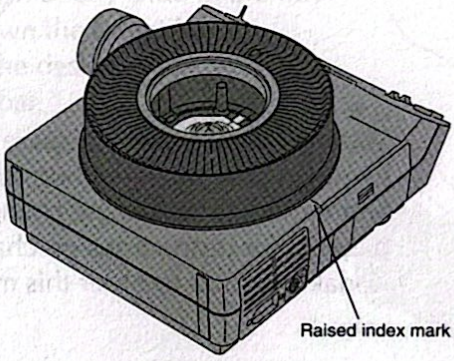
- press the **select bar** all the way down
- align the **tray index bar** with the **gate index.**



You can then lift off the tray.

Raised Index Mark

This feature allows you to coordinate tray starting positions for multiple-projector presentations. For an 80-slide tray in the zero position, the **raised index mark** is at slot 20. If you start with slide 6, it will align at slot 26. For a 140-slide tray in the zero position, the index mark is at slot 35. So, if you start with slide 12, it will align at slot 47.



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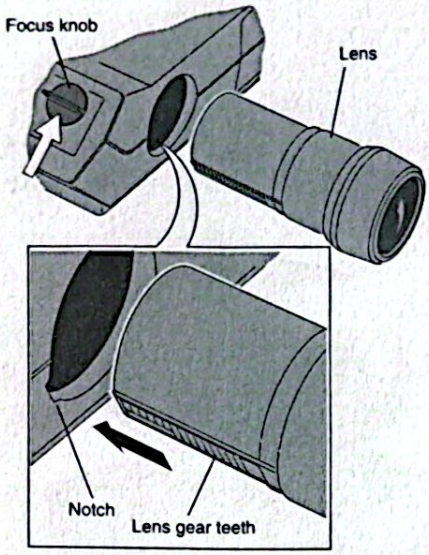
Projecting Your Slides

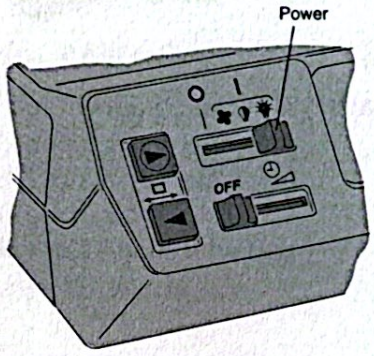
Lens

To insert a **lens**, push the **focus knob** up and position the **lens gear teeth** on the lens barrel with the **notch** on the projector.



Lamp

Slide the **power** switch to half lamp (for longer lamp life) or lamp (for maximum brightness).



You may want to keep a *spare* KODAK EC Lamp Module (CAT 831 3587) handy in case the lamp burns out during a presentation. Replacing the entire module makes the change quick and easy. (See Maintenance on page 23 for instructions on changing the lamp module.) See your dealer in Kodak products to order this module.

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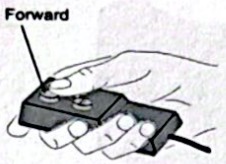
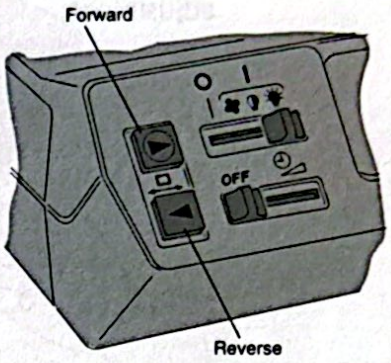
Forward and Reverse

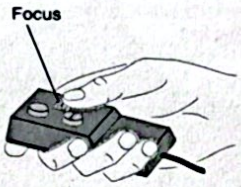
Press the **forward** button on the projector or the remote control to project the first slide. To change slides, briefly press the forward or **reverse** buttons.

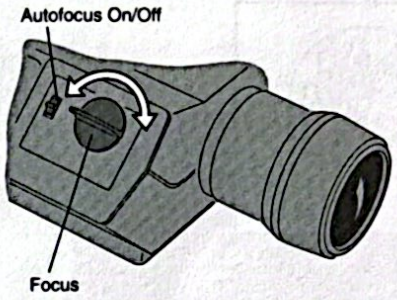




Focus

Focus your first slide using the **focus** knob on the projector or the **focus** button on the remote control.





Autofocus (Models A, AMT, and ATS only)

With **autofocus** *on,* the projector automatically focuses each slide, *after you focus your first slide manually.* Turn autofocus *off* if glass slides make the autofocus motor run continuously.

Random Projection

For random projection of any slide in the tray:

- press and hold down the **select bar,**
- rotate the tray to the desired slide, and
- release the select bar.

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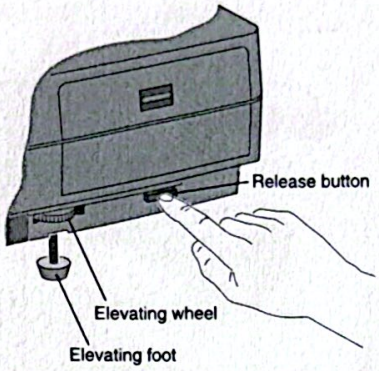
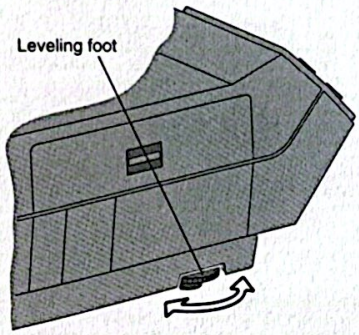
Screen Image

Use the **elevating foot** to horizontally center the projected image on the screen. To release the foot, press the **release button,** while lifting the front of the projector to the desired height. Use the **elevating wheel** to make fine adjustments.



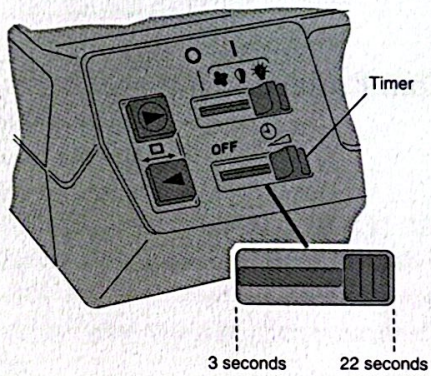
If the image is not level, make an adjustment by turning the **leveling foot** at the rear of the projector.



Timer

(Models AMT & ATS only)

To time your slides, use the **timer** switch for slide changes from 3 to 22 seconds.



To interrupt the timer, press either the forward or reverse button. For manual operation, slide the timer switch to Off.

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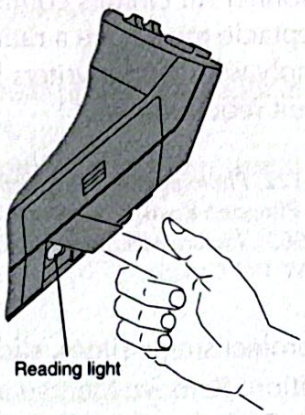
Reading Light

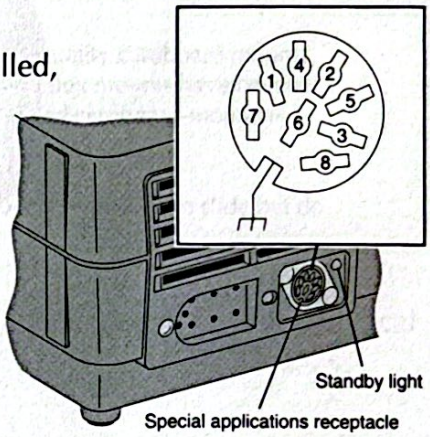
To read a script in a darkened room, you can use the **reading light.** To use it, simply lift the reading-light cover. The light will go on automatically.



Standby Light

A glowing **standby light** indicates a "ready" condition.

In a dissolve program, it indicates that
- both projectors are receiving power
- both power switches are set at fan
- both projection lamps are properly installed, not burned out, and ready
- both standby lights are operational
- all thermal fuses are functional



Special-Application Receptacle

The **special-application receptacle** allows additional external control and programming capability. It provides 22.5 V low-voltage power isolated from the main power line.

Use this receptacle for:
- automatic "return-to-zero" devices
- a low-voltage power supply
- a dark shutter switch

The receptacle accepts 8-pin plugs and DIN-type plugs with 3 or 5 pins at 180°. (See Appendix A for contact identification descriptions.)

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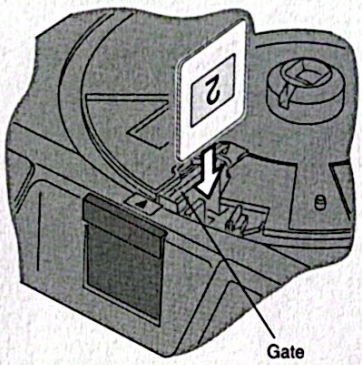
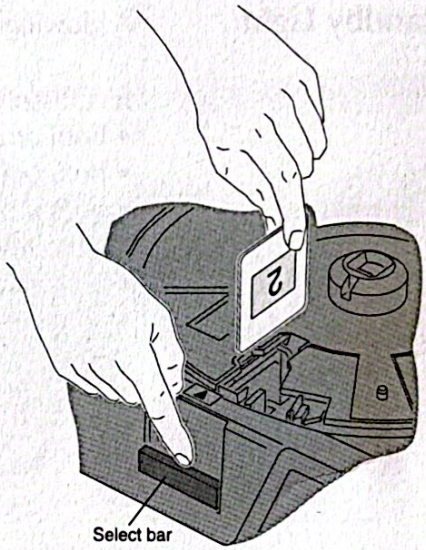
IMPORTANT! All equipment, cables, and connectors used with the special-application receptacle must be assembled by qualified electronic personnel All circuits connected electrically to the projector through this receptacle must have a rating of not more than 30 V (rms) and must comply with Underwriters Laboratories, Inc., low-voltage, limited energy circuit requirements.*

*UL-122, *Photographic Equipment,* Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096; CSA Specification C222, Number 118-1959 (R1965), *Picture Machines Appliances,* CSA, 178 Rexdale Boulevard, Rexdale, Ontario M9W 1R3 Canada.

Single Slides

To project single slides, slide the power switch to a half- or full-lamp position. Remove the tray and insert a slide upside down into the projector **gate.** Push the slide all the way down.





After viewing the slide, press forward, reverse, or the **select bar** to eject the slide.

Selecting Slide Projection Lenses

When buying a lens, consider features such as focal length (measured in millimetres), aperture (designed as an f/stop), and the lens design (curved or flat).

When selecting a lens, remember that the shorter the focal length (i.e., the smaller the f/number), the brighter the projected image. Also, a curved-field lens, in combination with cardboard open face mounts from an automated mounting process, provide superior projection quality. A flat-field lens is the best choice for glass-mounted slides.

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Choosing a Curved- or Flat-Field Lens

All ratings are based on proper insertion and orientation of a slide for projection; i.e., emulsion side ***toward*** the projection lens, slide curve toward the light source.

- For best results with rear-projection applications, use a flat-field lens and glass mounts.
- For best results with duplicated slides, use a flat-field lens.

Better = 1
Worse = 5

Lens Type	Embossed Cardboard*	Non-embossed Cardboard†	Glass	Plastic	Mixed (Any type)
Curved-Field	1	2	3	4	3
Flat-Field	3	2	1	2	2

* Kodalux Processing Service and other large photofinishers provide consistent quality cardboard mounts. This is important in maintaining reliable focus throughout a presentation. Kodalux mounts have beveled edges around the aperture for pre-heating and "popping" the film. An *embossed* cardboard-mounted slide with a curved-field lens provides high image quality at a low cost.

† *Non-embossed* cardboard mounts provide consistent quality cardboard mounts from slide to slide but do not have a beveled edge around the aperture.

Lens Focal Length/ Projector Distance

Use the illustration on the following page to help determine the lens focal length and projector distance.

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L	D
75 mm	13.3'
100mm	17.7'
125 mm	22.2'
150 mm	26.6'
175 mm	31.0'
200 mm	35.4'

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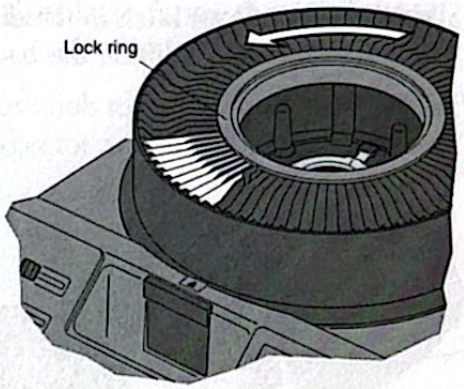
Editing Your Presentation

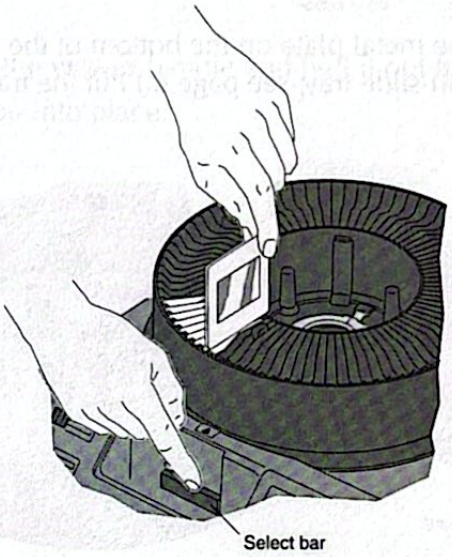
Removing the Lock Ring

To add or remove the slides in the tray, you must first remove the **lock ring.** Turn the ring counterclockwise and lift off.



Removing a Slide

Rotate the tray to the slide you wish to remove. Firmly press and hold down the **select bar** to eject the slide.



Adding a Slide

When the lock ring is off, you can add a slide to any empty slot. (See page 7.)

Replace and secure the lock ring.

English

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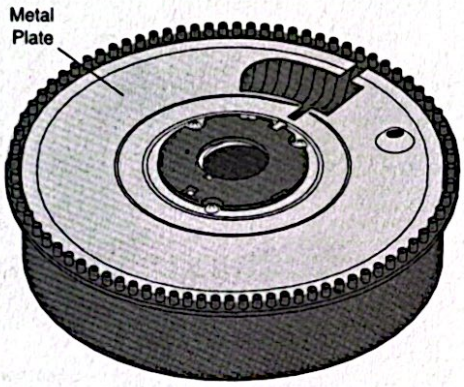
Clearing a Gate Jam

To remove a defective slide or foreign object stuck in the projector gate, you need to remove the tray.

- Slide the **tray release latch** in the direction of the arrow, and
- with your other hand, lift off the *back* of the tray.

Rotate the metal plate on the bottom of the tray until it locks into position. (For a 140-slide tray, see page 6.) Put the tray aside.



Remove the slide or object from the projector gate by pressing the forward button or removing the slide manually.

Remount damaged slides to protect your projector and slides from subsequent damage.

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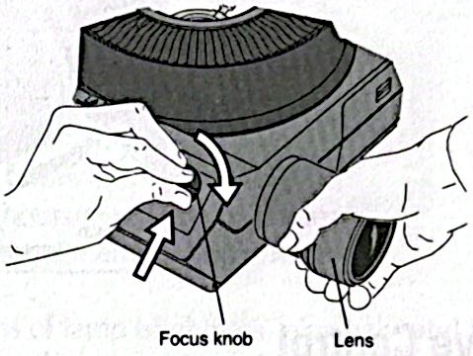
Using the Built-In Viewer (Model ATS Only)

IMPORTANT! Before opening the viewer, you must remove the projection lens from the projector.

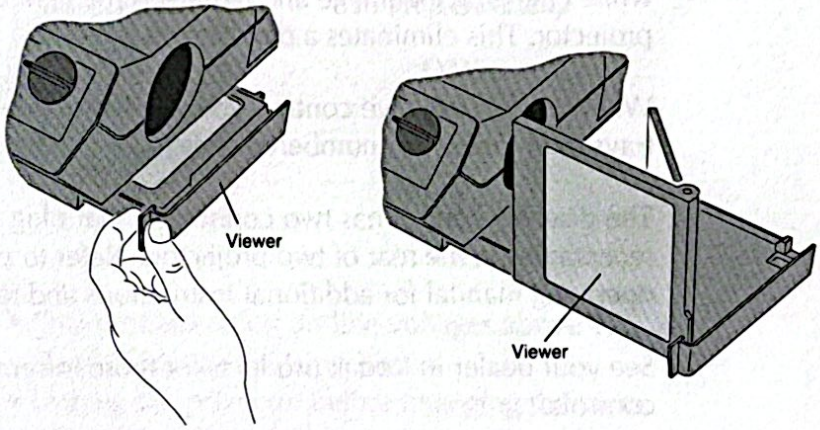
Removing the Lens

Turn the **focus** knob to the horizontal position. Push the knob toward the top of the projector as you withdraw the **lens**.



Opening the Viewer

Grasp the **viewer** handle and pull it out from the base of the projector. It will pop into place.



Slide the power switch to *lamp* to project your slides.

Closing the Viewer

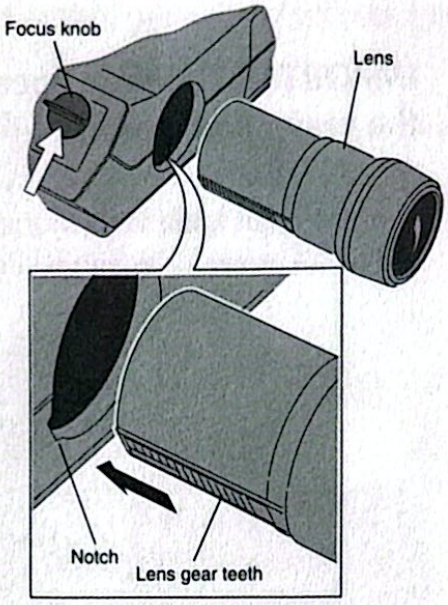
To close the viewer, fold it and push it back into the body of the projector.

English

Scanned with CamScanner

Reinserting the Lens

To reinsert the **lens,** push the **focus knob** up and position the **lens gear teeth** on the lens barrel with the **notch** on the projector.



Using a Dissolve Control

One of the more common uses for a dissolve control is a simple two-projector fade. This feature fades down the light beam in one projector, while changing the image and fading up the light beam in the other projector. This eliminates a dark-screen interval.

When using a dissolve control, you need to divide your slides into two trays (odd- and even-numbered slides).

The dissolve control has two connectors that plug into the remote-control receptacles in the rear of two projectors. Refer to your dissolve-control operating manual for additional instructions and features.

See your dealer in Kodak products for more information on Kodak dissolve controls.

Shutdown

To shut down,
- remove and store the tray
- slide the power switch to *off*

Your projector will remain warm for several minutes.

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Maintenance

To ensure a long life and trouble-free operation for your projector:

- Allow the air to flow freely around the projector.
- Do not recirculate warm air.
- Keep the projector dust free.
- If your projector is chilled, bring it to room temperature before operating.

Projection Lamps

Quartz-halogen 82 V projection lamps—
Included: EXR, 300 W (35-hour lamp life at full lamp/medium-brightness)
Sampling of other lamps:
EXY (200 hours/less brightness)
EXW (15 hours/maximum brightness)
FHS (70 hours/medium brightness)

Use combinations of lamp brightness, plus half- and full-lamp settings to approximate image brightness in multi-projector presentations.

Desired Brightness	EKTAGRAPHIC III Projector Lamp
Maximum	EXW
High	EXR
Medium	FHS
Low	EXY

Lamp Tips

- Projector operation on line voltages above 125 volts greatly reduces the lamp life.
- Unplug the projector before changing the lamp.
- Allow for unrestricted flow of air to the exhaust vent to prolong lamp life.
- Gently wipe off any fingerprints with a soft cloth moistened with rubbing alcohol.

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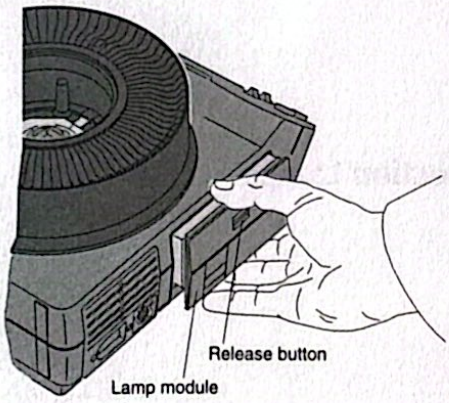
Changing the Projection Lamp

Slide the power switch to Off and unplug the projector.

Allow the projector and lamp to cool for about 10 minutes. Push the lamp-module **release button** and remove the **lamp module**. You can replace it with a new lamp module or replace only the lamp.

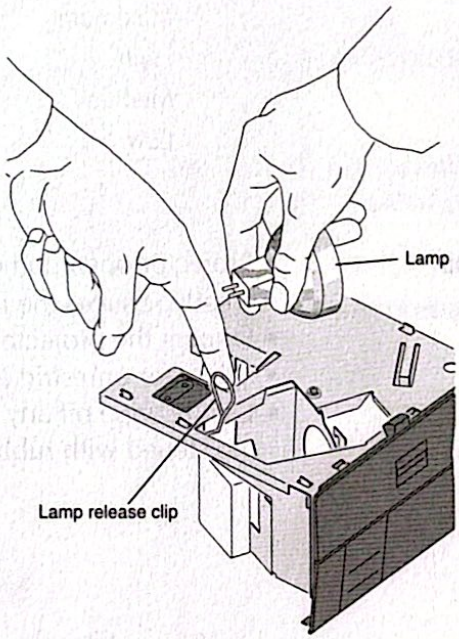


Note: There is an additional safety latch, which reduces the chance of an accident with a loosely inserted lamp module, that may cause some resistance. To release the latch, you may need to apply extra effort when you pull out the module.

To replace only the lamp, lift up the **lamp release clip**. Carefully remove the worn **lamp** from the socket and place it on a heat-resistant surface.

Insert a new lamp into the socket. Push down to tightly seat the replacement lamp.

Relatch the clip in the forward position and push the lamp module all the way back into the projector until it latches.



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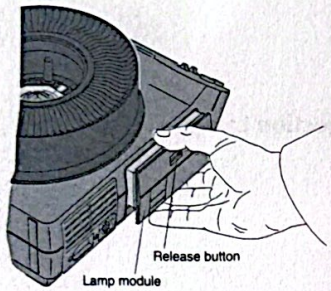

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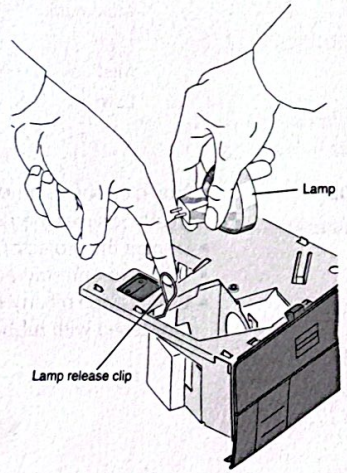
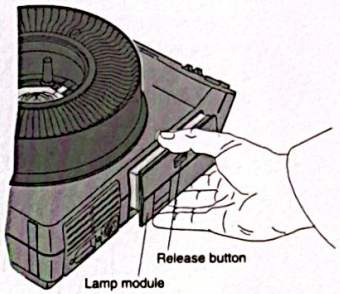
lamp, lift up the **lamp release clip**. Carefully remove the socket and place it on a heat-resistant surface.



Cleaning the Condenser, Heat-Absorbing Glass, and Mirror

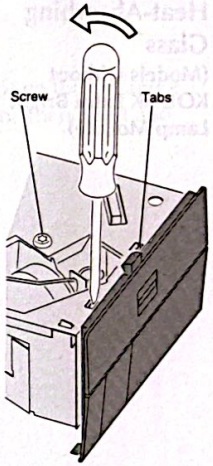
To clean the condenser, heat-absorbing glass, or mirror, you must disassemble the lamp module.

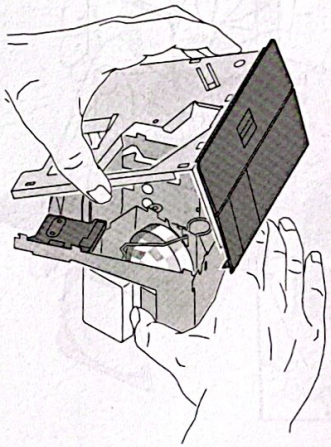
Slide the power switch to Off and unplug the projector. Allow the projector to cool about 10 minutes. Push the lamp-module **release button** and remove the **lamp module**.



Use a torx-head screwdriver to remove the **screw**.

Using a flat-blade screwdriver, apply ample pressure to release each of the metal **tabs**.





Lift off the top of the lamp module.

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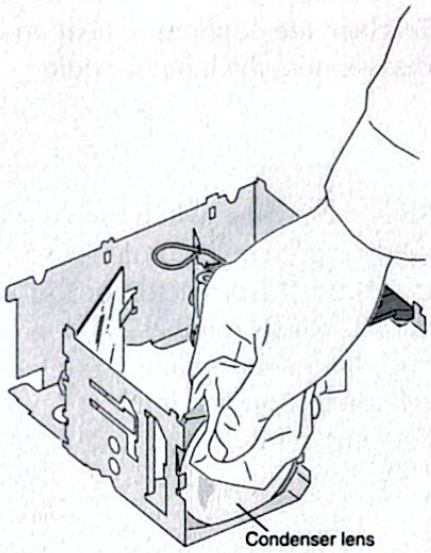
Condenser Lens

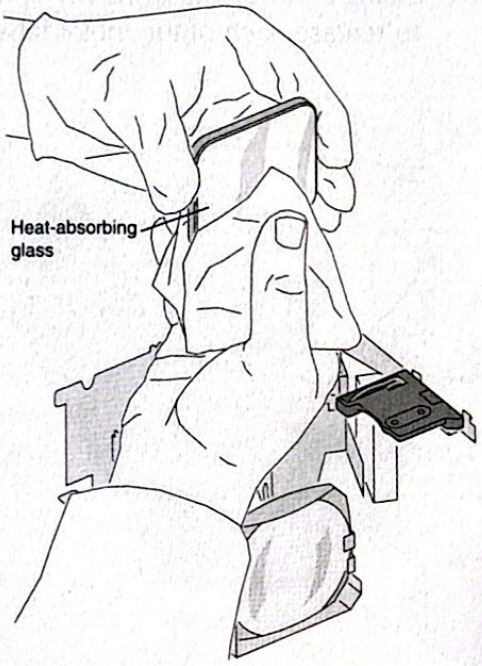
You can clean both sides of the **condenser lens** in place using a soft, lint-free cloth. Wear gloves to prevent fingerprints.



Heat-Absorbing Glass (Models without KODAK Extra Bright Lamp Module)

Caution: The heat-absorbing glass is fragile. Handle it only when cool.

The green-tinted **heat-absorbing glass** easily removes for cleaning.



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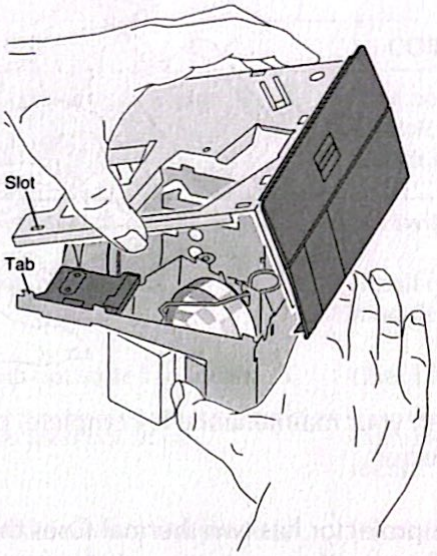
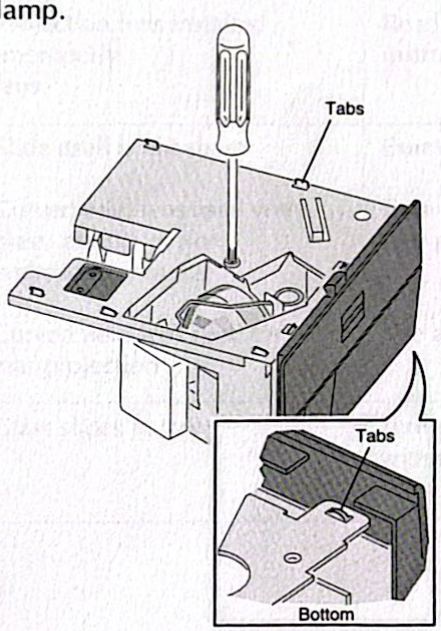
Reassembling the Lamp Module

To reassemble the lamp module, you will need to align and insert each **tab** into its appropriate **slot.**

Start with the tabs in the rear of the lamp module.



Insert the remainder of the **tabs** into slots until all 7 tabs on the top and 2 on the bottom are secured. Insert the screw and tighten. Then insert and seat the lamp.



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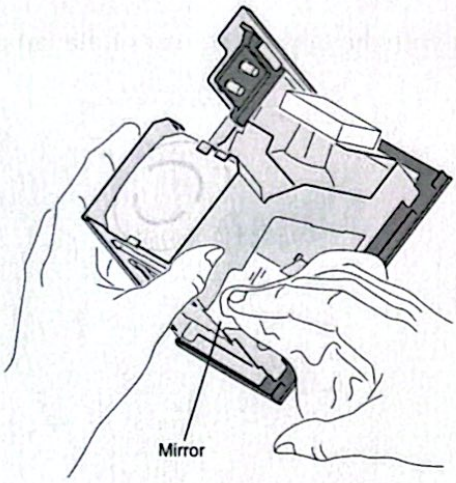
Mirror

To clean the **mirror,** invert the lamp module to reach the mirror. Gently clean the mirror with a soft, lint-free cloth moistened with lens cleaner.



When your maintenance is complete, push the lamp module back into the projector.

Thermal Fuses

Your projector has two thermal fuses that prevent overheating. If your projector will not operate, call the Kodak Information Center or Kodak in your country to obtain the name of a service center nearest you (see "How To Obtain Service" on page 30).

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Troubleshooting

Consult this guide before calling for service.

PROBLEM	CAUSE	CORRECTION
Projector does not operate	No power to projector	Plug power cord into suitable electrical outlet. Set power switch to Lamp.
No illumination on screen with slide in projector gate	Power switch on Off or Fan	Set switch to Lamp.
	Lamp burned out	Install new lamp or lamp module.
	Lamp not seated in socket	Check lamp.
Slide not in proper focus on screen	Slide itself not sharp	Examine slide for proper focus.
	First slide in tray not properly focused	Focus center of first slide manually.
	Slide in different type of mount from others	Focus manually.
	Projection lens installed improperly lens.	Read and follow the instructions for installing the
Uneven edge-to-edge focus	Slide itself is not sharp	Examine slide.
	Curved field lens used with glass, plastic, or non-embosssed mounts	Try a flat field lens. (See page 15.)
	Curved field lens used for rear projection	Use a flat field lens.
Autofocus motor runs continuously	Glass slides in tray	Turn off autofocus or use slides with mounts other than glass.

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PROBLEM	CAUSE	CORRECTION
Slide fails to drop into projection position	Tray base plate not properly indexed	Rotate the tray base plate until it locks into position.
	Tray not properly positioned on projector	Reposition tray on projector.
	Slide mount warped or frayed at corners	Straighten mount or remount slide.
	Projector not level or tilted too high	Set projector on a stand equal with center of screen.
Uneven illumination on screen	Projection lamp not fully seated	Check lamp.
	Condenser lens not installed or not positioned properly in mount	Check condenser lens.
	Slide mount not seated properly in projector gate	Check slide position and slide-mount condition.
Projector won't cycle to next slide	Tray not properly positioned	Reposition tray.
	Slide or foreign object stuck in gate	See "Clearing a Gate Jam" on page 18.
Program does not start with the correct slide	Tray number is not aligned with the raised index mark.	Reposition tray (see page 9.)

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Warranty

Kodak warrants this KODAK EKTAGRAPHIC Slide Projector to function properly for four years from the date of purchase.

If this KODAK EKTAGRAPHIC Slide Projector does not function properly within the warranty period, upon submission of dated proof of purchase, Kodak will repair it without charge, except for worn-out projector lamps. If Kodak is unable to repair the projector, the option of replacement or refund of the purchase price will be available.

See an audiovisual products dealer in your country for the KODAK EKTAGRAPHIC III ABR Slide Projector's warranty coverage.

Limitations

This warranty does not cover circumstances beyond Kodak's control, projector lamps, or problems caused by failure to follow the care and operating instructions in the manual.

Any modification to the original design of this projector nullifies this warranty.

Warranty service will not be provided without dated proof of purchase.

Kodak makes no other express warranty for this product.

Repair or replacement is Kodak's only obligation. **Kodak will not be responsible for any consequential or incidental damages resulting from the sale or use of this projector, regardless of the cause of such damages.**

Your Rights Under State Law

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

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How to Obtain Service

Assistance

To obtain service or for assistance in using your KODAK EKTAGRAPHIC Slide Projector, contact the **Kodak Information Center** at **1-800-242-2424,** Monday through Friday, 8 a.m. to 8 p.m. (Eastern time). In Canada, call 1-800-465-6325, Monday through Friday, 8:30 a.m. to 5 p.m. (Eastern time). Or call Kodak in your country.

Shipping Instructions

To help us get your KODAK EKTAGRAPHIC Slide Projector back to you promptly, please enclose a note giving details of the problem, dated proof of purchase, and your complete name and shipping address. Pack the unit in a sturdy carton with ample packing material to protect the unit during shipping and handling.

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Appendix A

Special-Application Receptacle Identification Chart

Contacts	Function	Description
1 & 3	Zero-Position Switch	Connects to an internal single-pole single-throw normally open switch. Contacts are closed when the slide tray is at any position other than zero. These leads connect only to the switch terminals. *Do not exceed a switching load of 1 A at 30 V ac.*
4 & 5	Shutter Switch	Connects to an internal single-pole single-throw normally closed switch. Contacts are open when a slide is in the projector gate and the shutter is open. These leads connect only to the switch terminals. *Do not exceed a switching load of 1 A at 30 V ac.*
7 & 8	Low-Voltage Supply	For operating external equipment. The current is supplied by a secondary winding on the main motor, isolated from the line-voltage power, and is avail able whenever the main projector motor is running. Supply is 25.5 V, 500 mA (1/2 A) maximum. Contact number 8 is common (return) for the remote-control circuit. Contact number 7 is the "hot" lead and is fused with a slow-blowing fuse. (Replacement requires disassembly of the projector by a qualified technician.)
6 & 8	Forward Tray Cycle	Connects to the forward tray-advance circuitry in the projector. These contacts are connected internally to the remote-control receptacle and an electrical connection made at either receptacle will result in a forward cycle.
2 & 8	Reverse Tray Cycle	Connects to the reverse tray-advance circuitry in the projector. These contacts are connected internally to the remote-control receptacle and an electrical connection made at either receptacle will result in a reverse cycle.
Shell	Plug Ground	If a plug with a conducting shell is used, it is connected to the projector frame (chassis) through the special-application receptacle and to earth ground through the projector's power cable.

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